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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 12

Application Number: 09/049,676
Filing Date: March 27, 1998
Appellant(s): S. Krishnaswamy et al.

Michael A. Papalas
For Appellant

MAILED
SEP 27 2001
Technology Center 2100

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 7/13/01.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

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(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The appellant's statement of the grouping of the claims in the brief is correct.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

Choquier et al., U.S. Patent No. 5,774,668, issued on June 30, 1998.

Pearson, U.S. Patent No. 5,903,754, issued on May 11, 1999.

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(X) Grounds of Rejection

Claims 1-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Choquier et al. "Choquier", U.S. Patent No. 5,774,668, in view of Pearson, U.S. Patent No. 5,903,754.

Regarding claim 1, Choquier discloses a method for transferring messages among an application program and a plurality of protocol layers in a communication subsystem of a computer using a communication subsystem controller, the computer being connected to a communication network and having a memory and at least one processor [Choquier, col. 1, line 41 - col. 2, line 65, col. 5, lines 9-65, col. 7, line 64 - col. 8, line 63, col. 12, lines 5-54, and col. 18, lines 9-67], the method comprising the steps of:

enabling an adjacent protocol layer to the application program to be an application service provider in response to the application program [Choquier, col. 12, line 6 - col. 13, line 38];

enabling a first protocol layer in the pair of adjacent protocol layers in the protocol stack to be a protocol service provider in response to a second protocol layer in the pair of adjacent protocol layers in the protocol stack [Choquier, col. 13, lines 4-34 and col. 18, lines 10-54];

transferring messages between the application program and the application service provider, further including the steps of:

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transferring messages between the application program and the communication subsystem controller [Choquier, col. 13, lines 4-34 and col. 18, lines 10-54], and

transferring messages between the communication subsystem controller and the application service provider [Choquier, col. 13, lines 4-34 and col. 18, lines 10-54]; and

transferring messages between the second protocol layer and the protocol service provider, further including the steps of:

transferring messages between the second protocol layer and the communication subsystem controller [Choquier, col. 12, line 6 - col. 13, line 38], and

transferring messages between the communication subsystem controller and the protocol service provider [Choquier, col. 12, line 6 - col. 13, line 38].

Choquier does not specifically disclose building the protocol stack in such detail as using the plurality of protocol layers and the communication subsystem controller, wherein the communication subsystem controller forms interfaces between the application program and its adjacent protocol layer in the protocol stack and at least between a pair of adjacent protocol layers in the protocol stack for transferring messages. However, Pearson, in the same field of endeavor, discloses building a protocol stack using the plurality of protocol layers and the communication subsystem controller, wherein the communication subsystem controller forms interfaces between the application program and its adjacent protocol layer in the protocol stack and at least between a pair of adjacent protocol layers in the protocol stack for transferring messages [Pearson, col. 4, line 45 - col. 5, line 49, col. 6, line 47 - col. 7, line 67, and col. 9,

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line 38 - col. 9, line 65]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the detailed protocol stack, shown by Pearson, in to the gateway system, taught by Choquier, in order to easily disclosed the relationship of the layers. One of ordinary skill in the art would have been motivated to modify Choquier to include the detailed protocol stack in view of Pearson, so that a user could replicate the stack easily.

Therefore, it would have been obvious to combine Choquier and Pearson (Choquier-Pearson) to obtain the invention as specified in claim 1.

Regarding claim 2, Choquier-Pearson further discloses the step of building the protocol stack using the plurality of protocol layers and the communication subsystem controller further includes the step of building the protocol stack according to a set of predetermined protocol stack information stored in the memory, wherein the set of predetermined protocol stack information includes at least information of the adjacent protocol layer to the application program and the pair of adjacent protocol layers in the protocol stack [Choquier, col. 13, lines 4-34 and col. 18, lines 10-54] [Pearson, col. 4, line 45 - col. 5, line 49, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claim 3, Choquier-Pearson further discloses the step of building the protocol stack using the plurality of protocol layers and the communication subsystem controller further

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includes the step of storing a set of service access point information in the memory, wherein the set of service access point information includes at least information of service access points used by the adjacent protocol layer to the application program and the pair of adjacent protocol layers in the protocol stack for transferring messages [Choquier, col. 10, lines 20-65, col. 13, lines 4-34 and col. 18, lines 10-54] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claim 4, Choquier-Pearson further discloses the step of storing the set of service access point information in the memory further includes storing the set of service access point information in a persistent storage for restoring the protocol stack during recovery activities [Choquier, col. 10, lines 20-65, col. 13, lines 4-34 and col. 18, lines 10-54] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claim 5, Choquier-Pearson further discloses the step of transferring messages between the application program and the application service provider further includes the step of transferring messages between the application program and the application service provider using a service access point according to the set of service access point information stored in the memory [Choquier, col. 12, line 6 - col. 13, line 38] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

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Regarding claim 6, Choquier-Pearson further discloses the step of transferring messages between the second protocol layer and the protocol service provider further includes the step of transferring messages between the second protocol layer and the protocol service provider using a service access point according to the set of service access point information stored in the memory [Choquier, col. 12, line 6 - col. 13, line 38] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claim 7, Choquier-Pearson further discloses the step of building the protocol stack using the plurality of protocol layers and the communication subsystem controller further includes the step of building the protocol stack using a preselected stack of network-dependent protocol layers, wherein the preselected stack of network-dependent protocol layers provide network dependent services to the protocol stack for connecting the computer to the communication network [ie. ISDN, X25, Choquier, col. 4, line 55 - col. 5, line 30] [Pearson, col. 8, lines 20-60].

Regarding claim 8, Choquier-Pearson further discloses the step of building the protocol stack using the preselected stack of network-dependent protocol layers further includes the step of providing an adapter layer between the preselected stack of network-dependent protocol layers and its adjacent protocol layer in the protocol stack for transferring messages between the preselected stack of network-dependent protocol layers and its adjacent protocol layer in the

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protocol stack [ie. ISDN, X25, Choquier, col. 4, line 55 - col. 5, line 30] [Pearson, col. 8, lines 20-60].

Regarding claim 9, Choquier-Pearson further discloses the step of building the protocol stack using the preselected stack of network-dependent protocol layer further includes the step of building the protocol stack with the communication subsystem controller forming an interface between the adjacent protocol layer to the preselected stack of network-dependent protocol layers and the adapter layer for transferring messages [ie. ISDN, X25, Choquier, col. 4, line 55 - col. 5, line 30] [Pearson, col. 8, lines 20-60].

Regarding claim 10, Choquier-Pearson further discloses the step of transferring messages between the preselected stack of network-dependent layers and its adjacent protocol layer, further including the steps of: transferring messages between the adjacent protocol layer to the preselected stack of network-dependent protocol layers and the communication subsystem controller, transferring messages between the communication subsystem controller and the adapter layer, and transferring messages between the adapter layer and the preselected stack of network-dependent protocol layers [Choquier, col. 4, line 55 - col. 5, line 30, col. 7, line 64 - col. 8, line 63, col. 12, lines 5-54, and col. 18, lines 9-67] [Pearson, col. 8, lines 20-60].

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Regarding claim 11, Choquier-Pearson further discloses the step of using multi-threading for enabling the computer to process messages in the protocol layers in the protocol stack [Choquier, col. 16, lines 10-67] [Pearson, col. 12, line 43 - col. 13, line 15].

Regarding claim 12, Choquier-Pearson further discloses the step of transferring messages between the second protocol layer and the protocol service provider further includes the step of providing recovery information to the communication subsystem controller during the transfer of messages from one of the second protocol layer and the protocol service provider to the communication subsystem controller [Choquier, col. 12, line 6 - col. 13, line 38] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claim 13, Choquier-Pearson further discloses the step of transferring messages between the application program and the application service provider further includes the step of providing recovery information to the communication subsystem controller during the transfer of messages from the application service provider to the communication subsystem controller [Choquier, col. 12, line 6 - col. 13, line 38] [Pearson, col. 9, line 38 - col. 9, line 65].

Regarding claim 14, Choquier-Pearson further discloses the step of storing the recovery information in a persistent storage for resuming the transfer of messages during recovery

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activities [Choquier, col. 12, line 6 - col. 13, line 38] [Pearson, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65].

Regarding claims 15-34, claims 15-34 have similar limitations as claims 1-14. Therefore, they are rejected under Choquier-Pearson for the same reasons set forth in the rejection of claims 1-14 [Supra 1-14].

(11) *Response to Argument*

1. The examiner summarizes the various points raised by the appellant and addresses replies individually.

2. (A) There is lack of motivation to combine Choquier and Pearson (Appeal Brief, pages 6-8).

As to point (A), Choquier substantially discloses the claimed invention [Choquier, col. 6, lines 55 - col. 7, line 3 and col. 12, lines 6 - col. 18, line 54]. Choquier does not specifically disclose the protocol stack in such detail as using the plurality of protocol layers and the communication subsystem controller, wherein the communication subsystem controller forms interfaces between the application program and its adjacent protocol layer in the protocol stack and at least between a pair of adjacent protocol layers in the protocol stack for

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transferring messages. The preferred embodiment of the invention of Choquier teaches the relationships between the protocol layers [Choquier, col. 8, lines 36-63, col. 12, line 15 - col. 13, line 38 and col. 18, lines 44-67]. Even without an objective teaching one of ordinary skill in the networking art at the time of the invention, would recognize the inefficiency of the skeletal view of the interfaces between the protocol layers in order to communicate to one another (as appear the case in Choquier) and that a further/deeper view of the relationships of the protocol layers are desirable or advantageous to the operation of the system. Pearson, in the same field of endeavor, discloses an objective teaching of the relationship of the protocol layers to each other with the use of a controller. Pearson discloses building a protocol stack using the plurality of protocol layers and the communication subsystem controller, wherein the communication subsystem controller forms interfaces between the application program and its adjacent protocol layer in the protocol stack and at least between a pair of adjacent protocol layers in the protocol stack for transferring messages [Pearson, col. 4, line 45 - col. 5, line 49, col. 6, line 47 - col. 7, line 67, and col. 9, line 38 - col. 9, line 65]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the detailed relationships of the protocol layers in the stack, shown by Pearson, into the gateway system, taught by Choquier, since Pearson discloses communication between computers, similar to the communications with client/server computers found in Choquier [Choquier, col. 12, line 55 - col. 13, line 3], that is improved by dynamically creating and recreating protocol layers and their interfaces within the computers [Pearson, col. 1, lines 8-12

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and col. 4, lines 45-65]. One of ordinary skill in the art would have been motivated to modify Choquier to include the modifying stack in view of Pearson, so the system would be more versatile and open for operators to easily manipulate the system upon the layer scale.

Therefore, it would have been obvious to combine Choquier and Pearson (Choquier-Pearson) to obtain the invention as specified in claim 1.

3. (B) Choquier does not teach building the protocol stack in such detail as using plurality of protocol layers and the communication subsystem controller. (Appeal Brief, pages 8-10).

As to point (B), Choquier substantially discloses the instant invention [Choquier, figures 5A and 5B]. The instant claims show only the client-side protocol stack and interfaces between the protocol layers with the use of the controller. Choquier discloses protocol layers within the client and the relationships between them [ie. MPC, MCP, and Network Layer, Choquier, col. 8, lines 36-63, col. 12, line 15 - col. 13, line 38 and col. 18, lines 44-67]. The MPC (Microsoft Connection Layer) layer optimizes the efficient client-server communications (a broad communication controller). Within the MPC, there are two protocol layers (adjacent), the message layer and the packet layer. The MPC interfaces between these two layers [Choquier, col. 18, line 9 - col. 19, line 46]. Further as a general matter, not only the specific teachings of a reference but also reasonable inferences which an artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. *In re Preda*, 401 F.2d 825, 159 USPQ 342 (CCPA 1968) and *In re Shepard*, 319 F.2d 194, 138 USPQ

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148 (CCPA 1963). Skill in the art is presumed. *In re Sovish*, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985). Furthermore, artisans must be presumed to know something about the art apart from what the references disclose. *In re Jacoby*, 309 F.2d 738, 226 USPQ 317 (CCPA 1962). The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference. *In re Bozek*, 416 F.2d 738, 1385 USPQ 545 (CCPA 1969). Every reference relies to some extent on knowledge of persons skilled in the to complement that which is disclosed therein. *In re Bode*, 550 F.2d 656, 193 USPQ 545 (CCPA 1977).

Choquier does not specifically disclose the detail in the interfacing between the adjacent protocol layers [Choquier, col. 18, line 9 - col. 19, line 46]. Pearson, though, discloses a more specific relationship/interfaces between the protocol layers (as seen in Point A).

Appellant argues the patentability of the claims by individually addressing the references used to reject the claims. It is noted that the claims above are rejected as being obvious using a combination of the references. Applicant cannot show non-obviousness by attacking the references individually where, as here the rejections are based on a combination of references.

See: *In re Keller*, 208 USPQ 871 (CCPA)1981.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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PRIMARY EXAMINER

Mehmet Geckil

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September 24, 2001

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